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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,060	07/01/2002	Mattias Hellgren	P67724US0	2636
136	7590	10/03/2003	EXAMINER A, MINH D	
JACOBSON HOLMAN PLLC 400 SEVENTH STREET N.W. SUITE 600 WASHINGTON, DC 20004			ART UNIT 2821	PAPER NUMBER

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,060

Applicant(s)

HELLGREN ET AL.

Examiner

Minh D A

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-16 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 6-11 and 15 are rejected under 35 U.S.C. 102(b) as being unpatentable by Shoemaker et al (US 5,363,114).

Regarding claim 1, Shoemaker discloses an antenna means (20) for transmitting and/or receiving RF signals in at least a first frequency band, comprising:
a ground plane means (25 and 26) arranged to be connected to ground of a circuitry of a radio communication device, a conductive radiating structure (R) having a first end (21) and a second end (22), the conductive radiating structure (R) is arranged separated from the ground plane means (25 and 26), characterised in that the conductive radiating structure (R) is formed as at least a first elongated open loop (61), the first end (21) is arranged to be connected to ground of the radio communication device, and a feed portion is arranged in vicinity of the first and/or second ends. See figures 1-15, col.2, lines 38-67 to col.6, lines 1-62.

Regarding claim 2, Shoemaker discloses the second end (22) being a feed portion. See figure 1.

Regarding claim 6, Shoemaker discloses a surface of the conductive radiating structure (R) being curved. See figures 1-5.

Regarding claim 7, Shoemaker discloses the conductive radiating structure (R) being meander shaped. See figures 1-5.

Regarding claim 8, Shoemaker discloses a tuning/matching means (16) for tuning/matching to one. See figures 1-5.

Regarding claims 9 -10, Shoemaker discloses a tuning/matching means is an electrical conductor having a first end and a second end, where said first end being arranged to the at least one elongated open loop, the second end being a free end and at least a part of at least one side of the conductor is capacitive coupled to the at least one elongated open loop. See figures 1-15.

Regarding claim 11, Shoemaker discloses at least one bridge connector being an electrical conductor with a first end and a second end, each connected to different parts of said at least one elongated open loop. See figures 1-15.

Regarding claim 15, Shoemaker discloses the first end of the conductive radiating structure (R) is coupled to ground. See figure 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-5, 12-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Shoemaker (US 5,363,114).

Regarding claims 4, 12, 13, 14 and 16, Shoemaker discloses the claimed invention except for a dielectric substrate or capacitor and inductor or a GPS antenna. It would have been an obvious matter of design choice to have a dielectric substrate or capacitor and inductor or a GPS antenna, since applicant has not disclosed that a dielectric substrate or capacitor and inductor or a GPS antenna solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a dielectric substrate or capacitor and inductor or a GPS antenna.

Regarding claim 5, Shoemaker discloses the claimed invention except for the range of 30-150°. It would have been an obvious matter of design choice to have the range of 30-150°, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Allowable Subject Matter

5. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach or fairly suggest that, the conductive radiating structure (10) having a total length of $\lambda/4$ - λ at a frequency in the frequency band to be received and/or transmitted by the antenna.

Conclusion

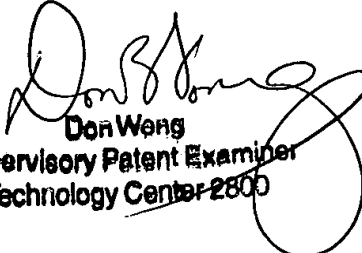
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ying. (US 6,329,962) and Takei et al. (US 5,914,693) are cited to show an antenna.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Minh A whose telephone number is (703) 605-4247. The examiner can normally be reached on M-F (7:30 —4:30 PM).

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Don Wong, can be reached on (703) 308-4856. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and (703) 872-9319 for final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Examiner
Minh A
Art unit 2821
09/20/03


Don Wong
Supervisory Patent Examiner
Technology Center 2800